Maritime Navigation and Information Services

MarNIS i.r.t.

River Information Services

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Why MarNIS on a Smart Rivers conference?

- RIS paved the way for MarNIS
- Co-modality will strengthen the transport chain
- Creates Win-Win for waterborne transport
- Processes, standards and technology are for an important part the same

Content of the Presentation

- Project characteristics
- MarNIS integrated approach
- E-maritime concept
- Relation with RIS
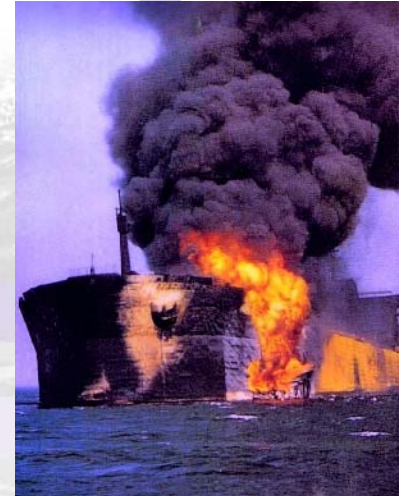
MarNIS

- Project type: FP6 - Integrated Project
- Responsible organisation EC: DG TREN
- Project duration: 4 Years
- Starting date: November 2004
- 44 Partners and 12 subcontractors from 13 countries:
  - Ministries of Transport and Port Authorities;
  - Branch organisations (Harbour masters, Pilots);
  - Industry & IT companies;
  - Universities & Research institutes
- Coordinator: AVV Transport Research Centre of the Dutch Ministry of Transport, Public Works and Water Management
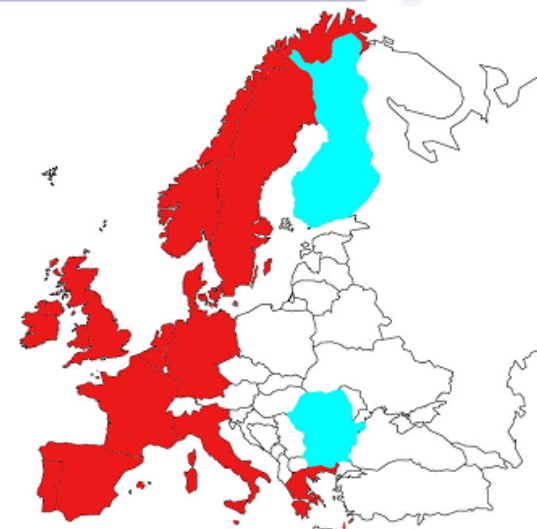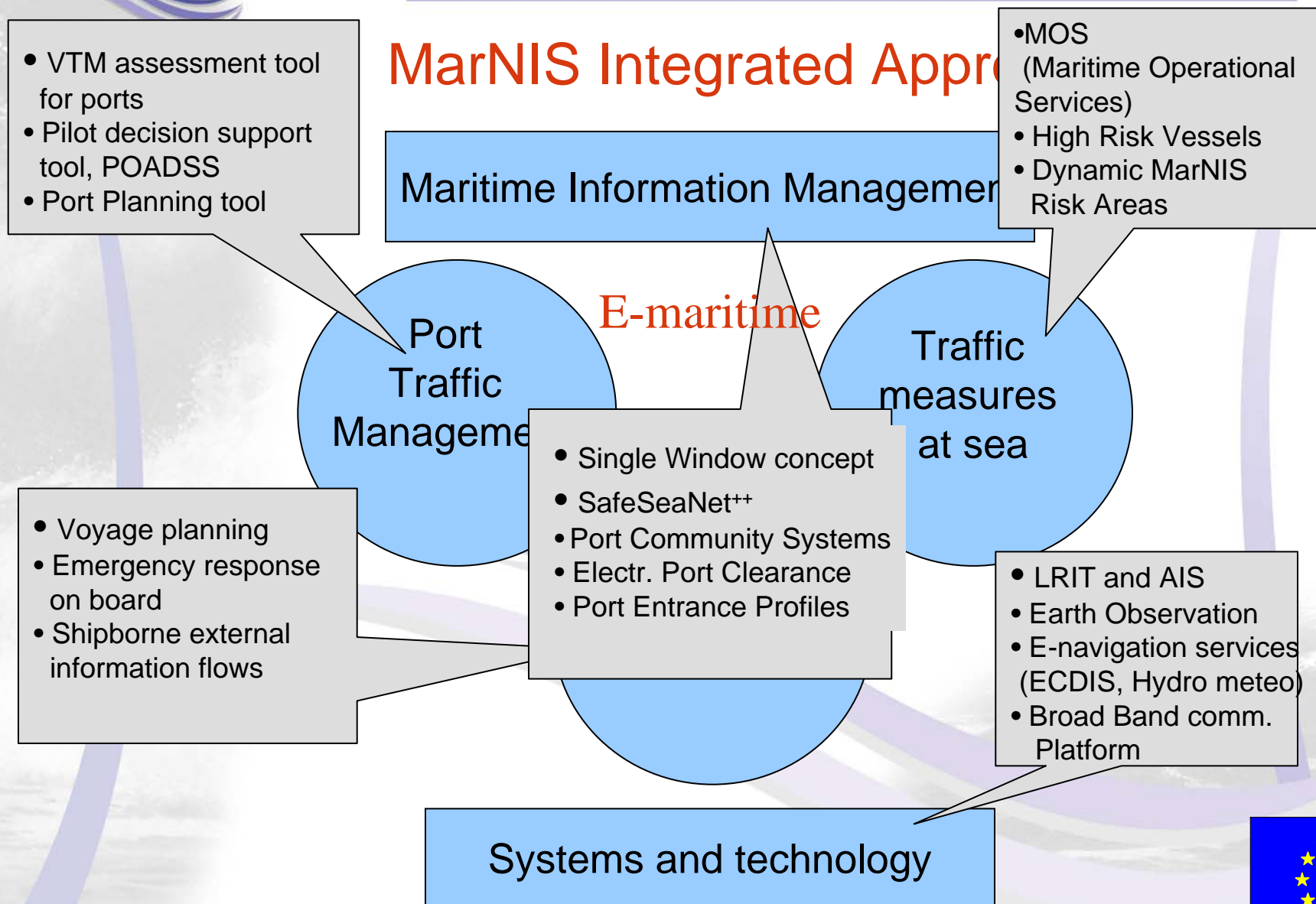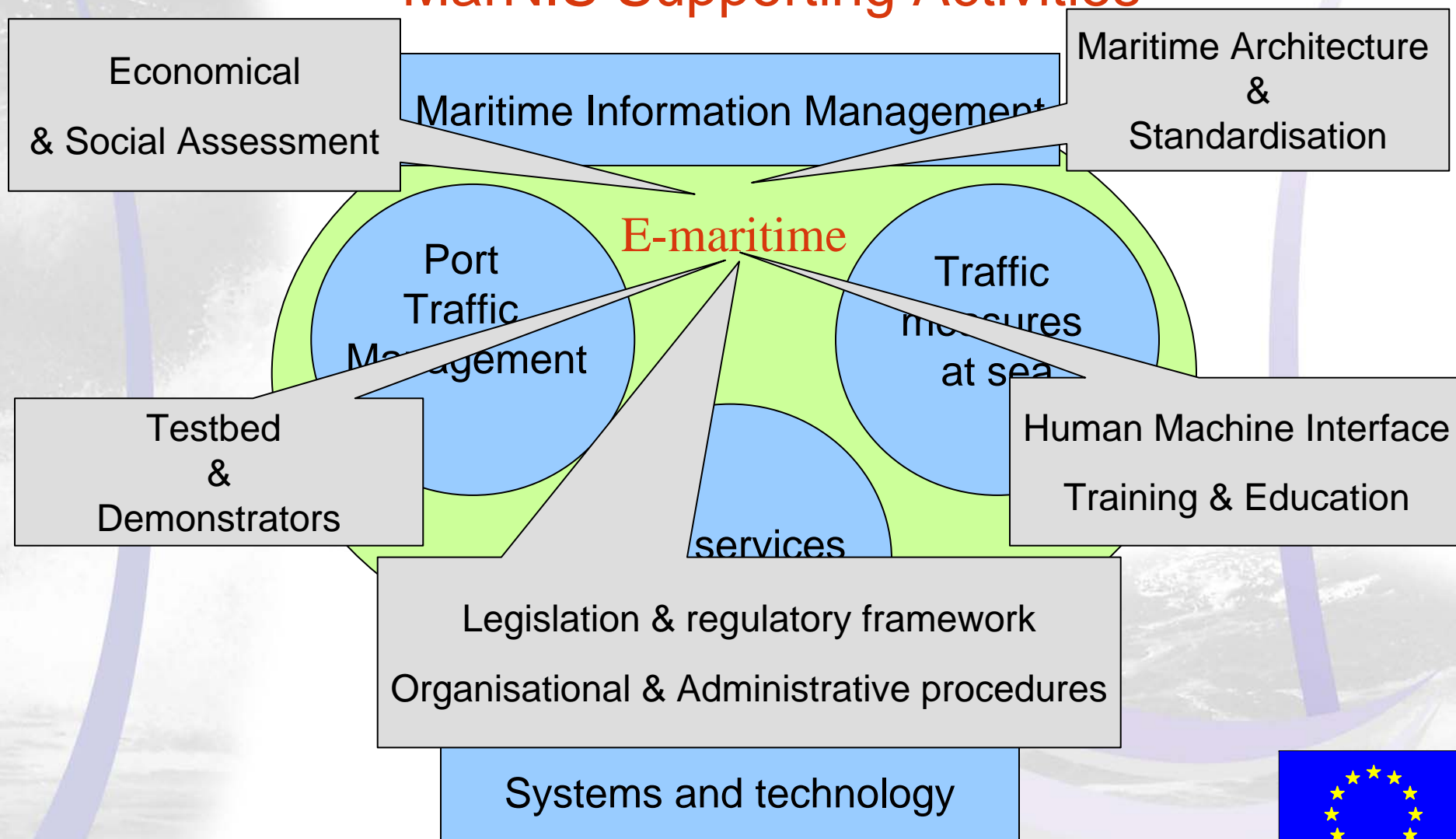
Objectives

- Improvement of safety, efficiency of maritime transport and the protection of the environment;

- Improvement of efficiency and reliability of information flows;

- Development of proposals for administrative, organisational and procedural changes;

- Development of proposals for new legislation

MarNIS Integrated Appr...

Maritime Information Management

E-maritime

Port Traffic Manageme...

Traffic measures at sea

- VTM assessment tool for ports
- Pilot decision support tool, POADSS
- Port Planning tool

- MOS (Maritime Operational Services)
- High Risk Vessels
- Dynamic MarNIS Risk Areas

- Single Window concept
- SafeSeaNet++
- Port Community Systems
- Electr. Port Clearance
- Port Entrance Profiles

- Voyage planning
- Emergency response on board
- Shipborne external information flows

- LRIT and AIS
- Earth Observation
- E-navigation services (ECDIS, Hydro meteo)
- Broad Band comm. Platform

Systems and technology

MarNIS E-maritime Concept focus 2012

Basic elements:

➢ Maritime Operational Services (MOS)

➢ Information Management

➢ VTM in ports

Maritime Operational Services (MOS)

- ## Builds on existing services for Search and Rescue and Vessel Traffic Management
  - ➢ Reduced Vessel Traffic Services;
  - ➢ Oil Pollution Response;
  - ➢ Maritime Assistance Services;
  - ➢ Search and Rescue (SAR);
  - ➢ Enforcement;
  - ➢ Aids to navigation, Marine marking service ;
  - ➢ Hydro/meteo services;

- ## Traffic image from :
  - ➢ AIS, LRIT and other sensors not necessarily radar

- ## Dynamic Maritime Risk Areas
  - ➢ MarNIS RISK indices for High Risk Vessels;
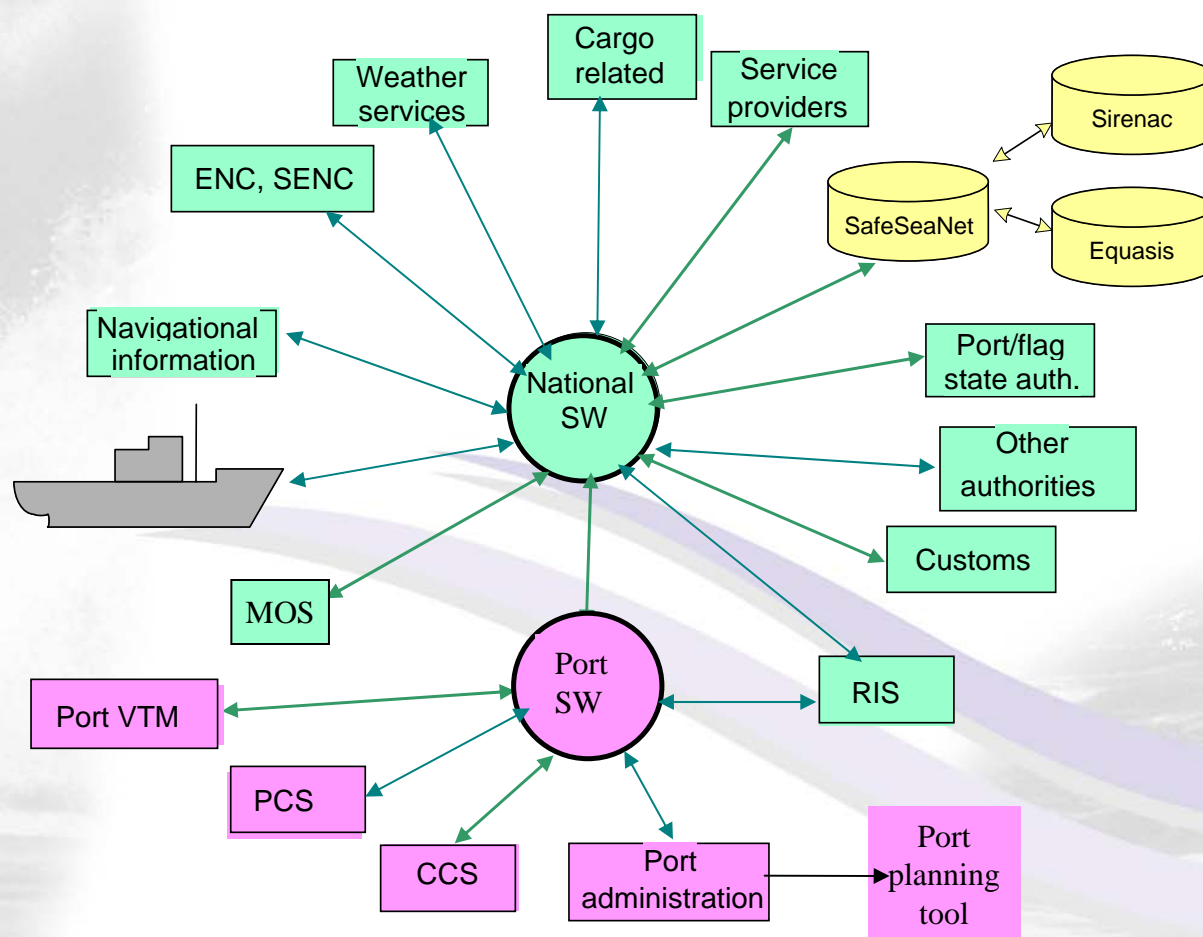 - ➢ Weather, location and traffic dependent
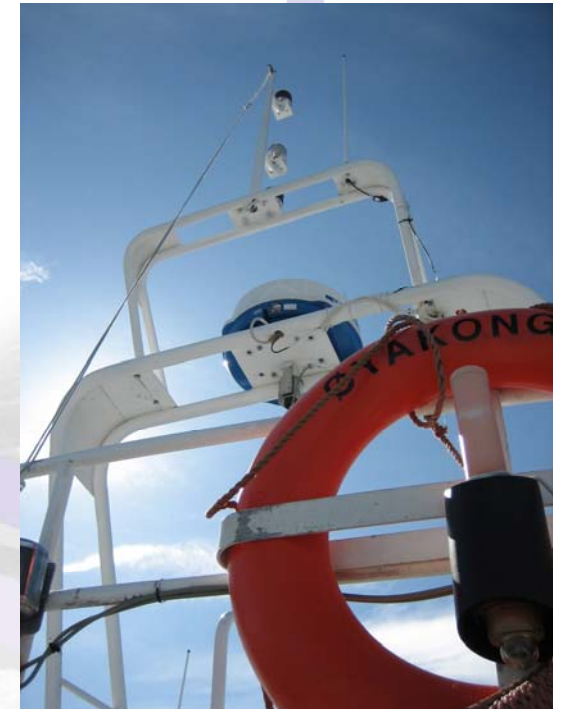
Today's Information Flow
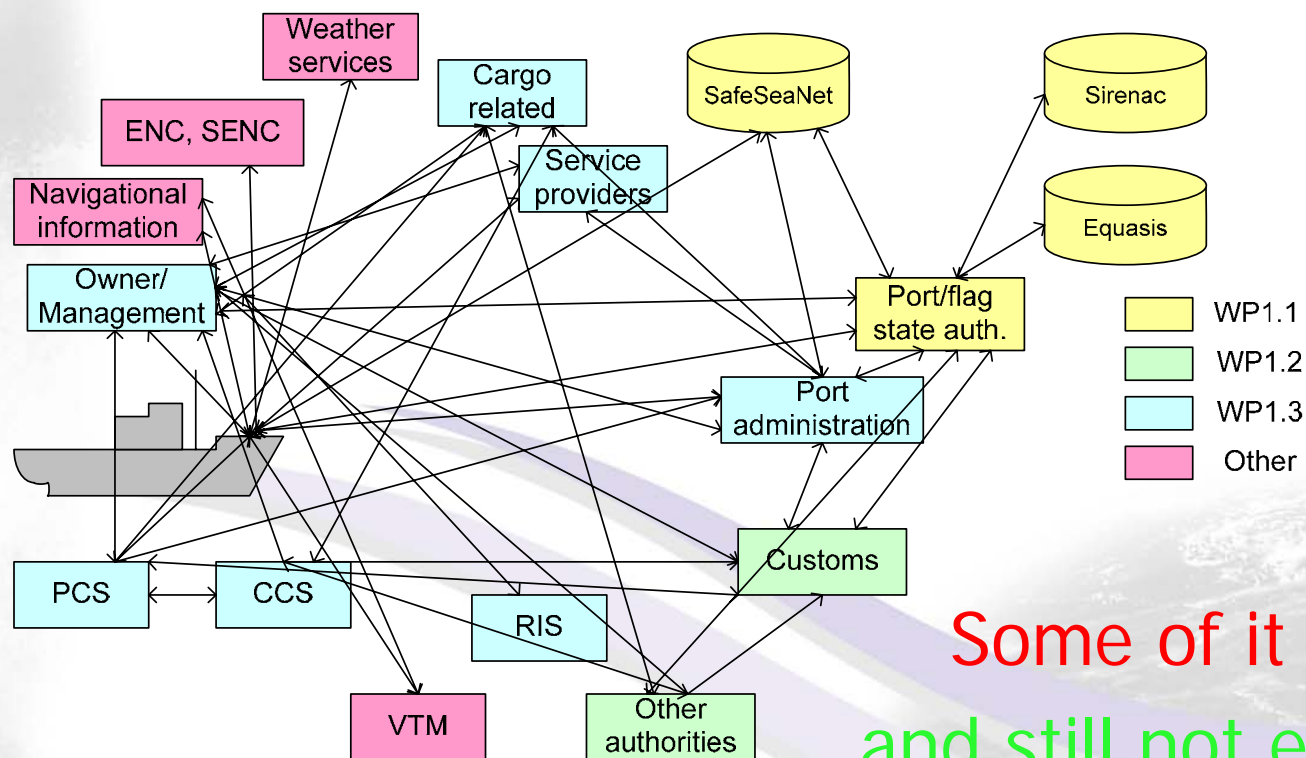
Some of it !

... and still not enough !
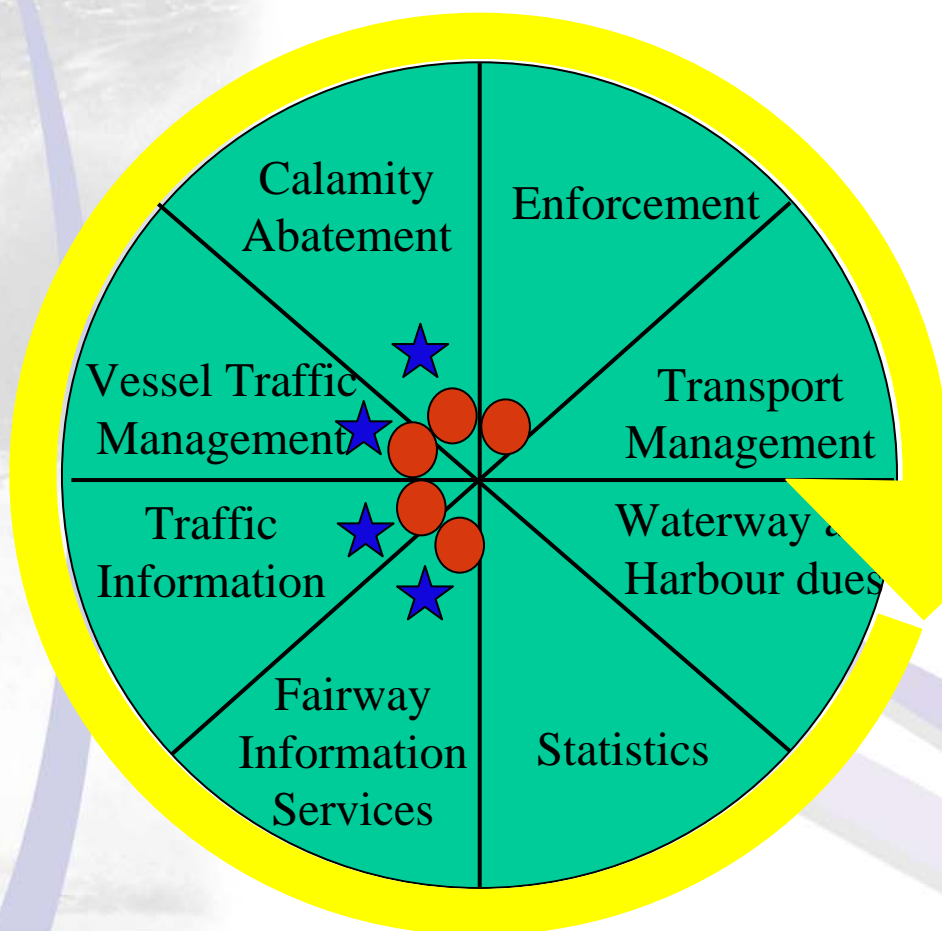
MarNIS: Single Window Concept

VTM in Ports

- **VTM assessment tool**
  - ➢ Baseline document: Port characteristics
  - ➢ Questionnaires or accident statistics: Hazard ranking list
  - ➢ VTM strategic advice
  - ➢ Cost/benefit report

- **Port Planning Tool**

- **POADSS – Portable Pilot Unit**
  - ➢ Dynamic under keel clearance
  - ➢ More accurate berthing facilities

MarNIS and RIS

- Standards
- Architecture
- Legislation

Wheel segments (clockwise): Calamity Abatement, Enforcement, Transport Management, Waterway and Harbour dues, Statistics, Fairway Information Services, Traffic Information, Vessel Traffic Management

Legend:
- MOS
- VTM in ports
- Information Management

Thank you for your attention

more information: www.marnis.org

SafeSeaNet⁺⁺

- SafeSeaNet nowadays
  - European Index Server; European Platform for Maritime Data Exchange between Member States' maritime authorities based on the concept of a distributed databases;
  - Collection, dissemination and harmonised exchange of maritime data;
  - Prevention of accidents at sea and marine pollution
- Add-on: Alert and security messaging based on MarNIS conceptual advise
- MarNIS: SafeSeaNet towards 2012
  - Voyage plan server;
  - LRIT repository;
  - Request and response server;
  - Reference databases

Single Window Concept

- More efficient communication
  - ➢ Master/agent will report once
- Early reporting
- Separation of responsibilities

Port Entrance Profiles (1)

Nowadays:

- Master/agents reports to different authorities
- More or less the same information
- Often making use of IMO FAL messages/forms

MarNIS:

- Master/agent reports once to NSW
- NSW compiles Port Entrance Profile Messages
- NSW informs the other Authorities

Port Entrance Profiles (2)

- IMO FAL messages
  - Overlap in information
  - Authorities select the information they need and ask often for additional information

- PEPs
  - Tailor made, directly linked to the tasks of the authorities
  - More information related to the tasks
  - Cross Reference Checks

- Based on PEPs Port Clearance will be given